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# ASX Release

21 July 2025

# High-Grade Au in Rock Chips at Sybil

## **Highlights**

- **Fieldwork underway at Sybil** Initial mapping and sampling has commenced at Francis Creek, part of Sybil (100%) with drilling planned for August 2025.
- Samples collected 13 rock chips have been assayed and results include 17.85g/t Au, 13.90g/t Au, 11.56g/t Au, 9.49g/t Au, 6.73g/t Au, 5.09g/t Au and 1.81g/t Au. Sampling confirms high-grade mineralisation at surface for >400m at Francis Creek.
- Ongoing work A high-resolution drone topographic survey will be completed to assist with drill hole planning. Reconnaissance mapping and sampling at Francis Creek East and Burdekin Veins has also commenced.

**Sunshine Metals Limited (ASX:SHN, "Sunshine")** has confirmed high-grade mineralisation extends for >400m at surface at Sybil, part of the Ravenswood Consolidated Project.

**Sunshine Managing Director, Dr Damien Keys**, commented "The rock chips are a further validation of the gold rich vein system exposed for >400m at Francis Creek. The samples allow us to get our eye in ahead of drilling at Francis Creek, planned for August 2025. The team has made substantial progress in a short period of time."



**Figure 1:** Brecciated crustiform-colloform silica-sulphide banded quartz vein. Rock chip (sample FC25\_005) that assayed 17.85g/t Au, from Francis Creek.





Figure 2: Sybil is located ~135km west of Townsville and ~140km north of Charters Towers.

#### Fieldwork further confirms high-grade Au at surface

Assays have been returned for 13 rock chips collected along the A Vein at Francis Creek. The samples included **17.85g/t Au** (FC25\_005, Figure 3), **13.90g/t Au** (FC25\_013, Figure 4), **11.56g/t Au** (FC25\_011), **9.49g/t Au** (FC25\_012), **6.73g/t Au** (FC25\_008, Figure 1), **5.09g/t Au** (FC25\_006, Figure 5) and **1.81g/t Au** (FC25\_001). The outcrop extends for >400m of strike.

A high-resolution drone topographic survey is scheduled for July 2025. The detailed topography and high-resolution air photos will be used in drill planning. Historic drill collars will also be validated.

First mapping and sampling have also commenced at the highly prospective Francis Creek East and Burdekin Vein targets.

#### Sybil High-Grade, Epithermal Project

Sybil is an epithermal gold system, located 135km west of Townsville (Sunshine head office) and ~140km north of Charters Towers (**Figure 2**). Gold was first identified at Sybil in 1986. Sybil was explored under joint venture between 1986-1996 with large companies including Homestake Gold, Battle Mountain and Cyprus Gold.



Sybil is a situated on a large (>40km) long extensional structure infilled with Permian-Carboniferous volcanics (**Figure 8**). The Sunshine tenure, covers the north of the structure, encompassing the shallowest portion of the low-sulphidation, high-grade system.

Initial rock chip sampling, stream sediment sampling and detailed mapping have been completed at several prospects. Drilling has largely focussed on Francis Creek and Quartz Ridge whilst the majority of Sybil remains highly underexplored.

Epithermal mineralisation was first identified at Francis Creek in 1986, through identification of classic colloform, crustiform and cockade epithermal vein textures. Rock chip sampling and costeaning followed on the "A" and "Main" veins returning maximum rock chip grades of **907g/t Au** and **262g/t Au**. A bulk sample collected (1991) from the A Vein was processed through the Ravenswood Gold Mine and produced **961t @ 7.6g/t Au (235oz Au)**. No further mining or bulk sampling has occurred.

Small drilling campaigns have been completed at Francis Creek with best intersections to date occurring at shallow depths.

First works completed by Sunshine have included:

- Validation of historic survey grid and drill collars;
- Mapping of vein orientations, textures and thicknesses at Francis Creek; and
- Determining status of site infrastructure including bore, pipes, water tanks and tracks.

Ongoing fieldwork will focus on first pass mapping and targeting at Francis Creek East and the Burdekin Veins. In these areas, increasing As and Sb in sampling suggests exposure of the upper boiling zone and a thickening of the prospective stratigraphy.



*Figure 3:* Brecciated crustiform-colloform quartz vein. Rock chip (sample FC25\_008) that assayed 6.73g/t Au, from Francis Creek.





*Figure 4:* Crustiform - colloform banded quartz-adularia vein. Rock chip (sample FC25\_013) that assayed 13.90g/t Au, from Francis Creek.



*Figure 5:* Crustiform - colloform banded quartz-adularia vein with cross cutting silica-sulphide veinlets. Rock chip (sample FC25\_006) that assayed 5.09g/t Au, from Francis Creek.



## Pajingo Analogue

The Pajingo low-sulphidation epithermal deposit (4Moz Au produced) is located nearby and shares many geological similarities. Both Sybil and Pajingo:

- Are of Carboniferous age, hosted in competent volcanic units overlaying Devonian aged sedimentary sequences.
- Are capped by hydrothermally altered volcaniclastic units derived from syn-mineralisation volcanism.
- Strike NNE, an orientation sub-parallel to the graben margin at Sybil and interpreted orientation of the Pajingo graben and both likely formed during similar extensional events.
- Exhibit zones of outcropping gold bearing quartz veins of >10km<sup>2</sup>.
- Show similar vein textures and compositions. Crustiform and colloform quartz-adularia veins host high-grade gold at both Sybil & Pajingo with the Pajingo deposit producing ~4Moz gold since 1986<sup>(1)</sup> (Figure 1, 3, 4, 5).
- Are hosted in shallowly dipping Volcano-sedimentary sequences and partially blanketed by younger cover sequences (**Figure 9**).

Accordingly, Sybil is highly prospective for Pajingo style gold mineralisation and remains underexplored. Minimal modern exploration has occurred at Sybil despite significant advances in knowledge and understanding of low-sulphidation epithermal systems.





*Figure 6:* New high-grade rock chip samples > 5g/t Au (yellow boxes) & historic rock chips (white boxes) at Francis Creek





Figure 7: Historic, high-grade drilling at Francis Creek





Figure 8: Sybil tenure, regional geology and prospects





*Figure 9:* Schematic comparison of the Sybil and Pajingo epithermal systems (both long sections are looking north). Figure modified from AIG NEQ Minerals Workshop Presentation, "Pajingo – exploring undercover", March 2022.



#### **Sybil Prospects Summary**

Highlights from some of the many prospective areas (Figure 9) within Sybil include:

#### <u>Quartz Ridge</u>

Disseminated gold mineralisation occurs within a major zone of hydrothermal alteration and brecciation that covers an area of 3km<sup>2</sup> and is characterised by pervasive silica flooding and broad zones of disseminated pyrite. Intersections to date include FSR070; **68m @ 0.38g/t Au** (from 36m), FSR035; **22m @ 0.55g/t Au** (from surface) and FSR070; **2m @ 3.9g/t Au**, including 1m @ 6.9g/t Au (from 102m). The encouraging intersections typically occur within epiclastic sequences above the interpreted target boiling zone which remains untested.

#### Francis Creek East

Sits ~300m east of Francis Creek and is a north-west trending sheeted stockwork of epithermal quartz veins that is up to 100m wide. Historic rock chips of up to **28.1g/t Au** are reported and remain undrilled.

#### Burdekin Veins

Comprises two zones of epithermal quartz veining that occur within the Hells Gate Rhyolite near the Sybil Graben Fault. Burdekin Veins contains rock chips to **3.02g/t Au** and elevated Sb levels suggesting Au mineralization may improve at depth.

#### <u>Blue Range</u>

Is a zone of epithermal quartz veining located 6km north-west of Francis Creek with rock chips up to **20.4g/t Au**.

#### <u>Pinnacles</u>

Sits ~5km to the north-east of Quartz Ridge at the eastern end of a prominent east-west topographic high. The prospect was discovered in 1989 following regional stream sediment sampling that identified gold and arsenic anomalies. Detailed geological mapping, rock chip and grid-based soil sampling defined coincident Au and As anomalies that were associated with zones of intense silicification and quartz vein stockworks. Broad zones of mineralisation include FSR055 (**48m @ 0.22** g/t Au from 16m) and FSR056 (**26m @ 0.21 g/t Au** from 6m & **27m @ 0.35 g/t Au** from 72m).

#### Lassiters

Is in the southern part of EPM 26931. The main area of interest is a 3km long zone of alteration that is up to 500m wide and coincides with a reverse polarised aeromagnetic feature. This is similar to the large mineralising systems at Mt Leyshon and Red Dome. Alteration comprises strong silicification of the host pelitic sediments and is accompanied by widespread iron and manganese oxides. Pervasive and multi-phased quartz vein stockworks are present and commonly have an orientation that is parallel to the north-west trend of the Sybil Graben boundary faults. Lassiters remains untested by drilling.



## **Planned activities**

The Company has a busy period ahead including the following key activities and milestones:

- July-Dec 2025: PFS at Liontown Au
- July-Aug 2025: Field work and RC drilling at Sybil Au
- > July-Aug 2025: Liontown Au metallurgy results and Resource upgrade
- July 23-25, 2025: Noosa Mining Conference, Noosa
- > August 2025: Fieldwork update Mt Pleasant Au target
- > Sept 17-18, 2025: Resources Rising Stars Conference, Gold Coast

#### Sunshine's Board has authorised the release of this announcement to the market.

For more information, please contact:

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#### **Competent Person's Statement**

The information in this report that relates to Exploration Results is based on, and fairly represents, information compiled by Mr Tav Bates, a Competent Person who is a Member of the Australian Institute of Geoscientists (AIG). Mr Bates has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. Mr Bates consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources at Liontown is based on information compiled and reviewed by Mr Chris Grove who is a Member of the Australian Institute of Mining and Metallurgy (AusIMM) and is a Principal Geologist employed by Measured Group Pty Ltd. Mr Grove has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Mineral Resources. Mr Grove consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources at Plateau is based on information compiled and reviewed by Dr Damien Keys, who is a Member of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists (AIG). Dr Keys has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Mineral Resources. Dr Keys consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources at Waterloo and Orient is based on information compiled and reviewed by Mr Stuart Hutchin, who is a Member of the Australian Institute of Geoscientists (AIG) and is a Principal Geologist employed by Mining One Pty Ltd. Mr Stuart Hutchin has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Mineral Resources. Mr Stuart Hutchin consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources at Liontown East is based on information compiled and reviewed by Mr Peter Carolan, who is a Member of the Australasian Institute of Mining and Metallurgy and was a Principal Geologist employed by Red River Resources Ltd. Mr Peter Carolan has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Mineral Resources. Mr Peter Carolan consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



## About Sunshine Metals

## Big System Potential.

*Ravenswood Consolidated Project (Zn-Cu-Pb-Au-Ag-Mo):* Located in the Charters Towers-Ravenswood district which has produced over 20Moz Au and 14mt of VMS Zn-Cu-Pb-Au ore. The project comprises:

- The newly interpreted Liontown Dome, hosting multiple gold and base metal prospects;
- a Zn-Cu-Pb-Au VMS Resource of 7.0mt @ 4.0g/t Au (904koz AuEq) or 11.1% ZnEq (42% Indicated, 58% Inferred<sup>1</sup>);
- the under-drilled Liontown Au-rich footwall with significant intersections including:
  - o 20.0m @ 18.2g/t Au (109m, 24LTRC005)
  - o 17.0m @ 22.1g/t Au (67m, 23LTRC002)
  - o 8.0m @ 11.7g/t Au & 0.9% Cu (115m, LLRC184)
  - o 8.1m @ 10.7g/t Au (154m, LTDD22055)
  - o 16.2m @ 4.54g/t Au, 1.11% Cu (from 319m, 24LTDD024)
  - o 5.0m @ 27.9g/t Au, 1.7% Cu (20m, LRC018)
  - o 2.0m @ 68.6g/t Au (24m, LRC0043)
- advanced Au-Cu VMS targets at Coronation and Highway East, analogous to the nearby Highway-Reward Mine (3.9mt @ 5.3% Cu & 1.1g/t Au mined);
- overlooked orogenic, epithermal and intrusion related Au potential with numerous historic gold workings and drill ready targets; and

\**Investigator Project (Cu):* Located 100km north of the Mt Isa, home to rich copper-lead-zinc mines that have been worked for almost a century. Investigator is hosted in the same stratigraphy and similar fault architecture as the Capricorn Copper Mine, located 12km north.

\**Hodgkinson Project (Au-W):* Located between the Palmer River alluvial gold field (1.35 Moz Au) and the historic Hodgkinson gold field (0.3 Moz Au) and incorporates the Elephant Creek Gold, Peninsula Gold-Copper and Campbell Creek Gold prospects.

\*A number of parties have expressed interest in our other quality projects (Investigator Cu and Hodgkinson Au-W). These projects will be divested in an orderly manner in due course.

<sup>&</sup>lt;sup>1</sup> This announcement contains references to exploration results and estimates of mineral resources that were first reported in Sunshine's ASX announcement dated 11 December 2024. Sunshine confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcement. In relation to estimates of mineral resources, Sunshine confirms that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Metal equivalent calculation on next page.





#### **Recoverable Gold & Zinc Equivalent calculations**

The gold and zinc equivalent grades for Greater Liontown (g/t AuEq, % ZnEq) are based on the following prices: US\$2,900t Zn, US\$9,500t Cu, US\$2,000t Pb, US\$2,500oz Au, US\$30oz Ag.

Metallurgical metal recoveries are broken into two domains: copper-gold dominant and zinc dominant. Each domain and associated recoveries are supported by metallurgical test work and are: <u>Copper-gold dominant</u> – 92.3% Cu, 86.0% Au, <u>Zinc dominant</u> 88.8% Zn, 80% Cu, 70% Pb, 65% Au, 65% Ag.

The AuEq calculation is as follows: AuEq =  $(Zn \text{ grade} * Zn \text{ recovery} * (Zn \text{ price }/t * 0.01/ (Au \text{ price }/oz / 31.103))) + (Cu \text{ grade} % * Cu recovery % * (Cu price }/t/ (Au \text{ price }/oz / 31.103))) + (Pb \text{ grade} % * Pb \text{ recovery} % * (Pb \text{ price }/t/ (Au \text{ price }/oz / 31.103))) + (Au \text{ grade} g/t / 31.103 * Au recovery %) + (Ag \text{ grade} g/t / 31.103 * Ag recovery % * ((Ag \text{ price }/oz / 31.103)/ (Au \text{ price }/oz / 31.103)))) + (Au \text{ grade} g/t / 31.103 * Ag recovery % * ((Ag \text{ price }/oz / 31.103)/ (Au \text{ price }/oz / 31.103)))))$ 

The ZnEq calculation is as follows: ZnEq = (Zn grade% \* Zn recovery) + (Cu grade% \* Cu recovery% \* (Cu price /t/ Zn price /t \* 0.01))) + (Pb grade% \* Pb recovery% \* (Pb price /t/ Zn price /t \* 0.01)) + (Au grade g/t / 31.103 \* Au recovery% \* ((Au price /oz / 31.103) / Zn price /t \* 0.01))) + (Ag grade g/t / 31.103 \* Ag recovery% \* ((Ag price /oz / 31.103) / Zn price /t \* 0.01))) + (Ag grade g/t / 31.103 \* Ag recovery% \* ((Ag price /oz / 31.103) / Zn price /t \* 0.01))).

For Waterloo transition material, recoveries of 76% Zn, 58% Cu and 0% Pb have been substituted into the ZnEq formula. For Liontown oxide material, recoveries of 44% Zn, 40% Cu and 35% Pb have been substituted into the ZnEq formula. Further metallurgical test work is required on the Liontown oxide domain. It is the opinion of Sunshine and the Competent Person that the metals included in the ZnEq formula have reasonable potential to be recovered and sold.

The Ravenswood Consolidated VMS Resource is comprised of 7.0mt @ 1.3g/t Au, 0.9% Cu, 5.5% Zn, 1.7% Pb and 31g/t Ag (11.1% ZnEq). For further details refer to SHN ASX Release, 11 December 2024, "904koz AuEq Resource at Ravenswood Consolidated".



#### Sunshine Metals Mineral Resources

Prospect	Lease	Resource	Tonnage	Gold	Copper	Zinc	Silver	Lead	Zinc Eq.	Gold Eq	Gold Eq	Containe	d Contained	Contained	Contained Silver	Containe
	Status	Class	(kt)	(g/t)	(%)	(%)	(g/t)	(%)	(%)	(g/t)	(oz)	Gold (oz	) Copper (t)	Zinc (t)	(oz)	Lead (t)
Liontown Oxide	ML/MLA	Inferred	133	1.9	0.7	0.7	24	2.3	5.7	2.1	8,742	8,017	902	981	100,595	3,011
Liontown Transitional	ML/MLA	Inferred	228	1.8	0.9	2.7	28	2.7	6.9	2.5	18,071	13,096	2,048	6,076	206,096	6,076
	ML/MLA	Total	360	1.8	0.8	2.0	26	2.5	6.4	2.3	26,813	21,113	2,950	7,057	306,691	9,087
Liontown Fresh	ML/MLA	Indicated	2,191	1.5	0.6	5.0	37	1.8	10.5	3.8	266,288	102,148	13,366	108,680	2,581,165	38,564
	ML/MLA	Inferred	1,929	1.9	1.2	2.3	15	0.7	9.8	3.5	218,304	117,835	22,762	44,752	940,196	12,924
		Total	4,120	1.7	0.9	3.7	27	1.2	10.1	3.7	484,592	219,98	36,128	153,433	3,521,361	51,488
Liontown East	ML/MLA	Inferred	1,462	0.7	0.5	7.4	29	2.5	11.1	4.0	188,266	34,162	7,136	108,936	1,375,350	37,081
		Total	1,462	0.7	0.5	7.4	29	2.5	11.1	4.0	188,266	34,162	7,136	108,936	1,375,350	37,081
Waterloo	ML/MLA	Indicated	406	1.4	2.6	13.2	67	2.1	23.2	8.4	109,379	17,883	10,612	53,633	876,881	8,503
	ML/MLA	Inferred	284	0.4	0.7	6.6	33	0.7	9.0	3.3	29,747	3,642	2,095	18,651	301,215	2,109
		Total	690	1.0	1.8	10.5	53	1.5	17.4	6.3	139,127	21,525	12,707	72,284	1,178,095	10,613
Orient	EPM	Indicated	331	0.2	1.1	10.9	55	2.5	15.2	5.5	58,191	2,152	3,537	36,030	584,686	8,271
	EPM	Inferred	33	0.2	0.9	14.2	50	2.2	17.5	6.3	6,582	234	298	4,642	52,779	717
		Total	363	0.2	1.1	11.2	55	2.5	15.4	5.5	64,773	2,386	3,836	40,672	637,464	8,988
Total VMS Resource			6,996	1.3	0.9	5.5	31	1.7	11.1	4.0	903,571	299,16	62,756	382,382	7,018,963	117,256
Plateau <sup>#</sup>	EPM	Inferred	961	1.7	-	-	10.7	-				49,960	-	-	329,435	-
Global Resource			7,957							3.7		349,12	62,756	382,382	7,348,398	117,256

# SHN earning 75% equity in Lighthouse Farm-In tenements. Refer to SHN ASX release, 20 January 2023 "Consolidation of High-Grade Advanced Au Prospects, RW"

The gold and zinc equivalent grades for Greater Liontown (g/t AuEq, % ZnEq) are based on the following prices:

US\$2,900t Zn, US\$9,500t Cu, US\$2,000t Pb, US\$2,500oz Au, US\$30oz Ag. Metallurgical metal recoveries are broken into two domains: copper-gold dominant and zinc dominant. Each domain and associated recoveries are supported by metallurgical test work and are: Copper-gold dominant - 92.3% Cu, 86.0% Au, Zinc dominant 88.8% Zn, 80% Cu, 70% Pb, 65% Au, 65% Ag. The AuEg calculation is as follows: AuEg = (Zn grade% \* Zn recovery \* (Zn price \$/t \* 0.01/ (Au price \$/oz / 31.103))) + (Cu grade % \* Cu recovery % \* (Cu price \$/t/ (Au price \$/oz / 31.103))) + (Pb grade % \* Pb recovery % \* (Pb price \$/t/ (Au price \$/oz / 31.103))) + (Au grade q/t / 31.103 \* Au recovery %) + (Ag grade q/t / 31.103 \* Ag recovery % \* ((Ag price \$/oz / 31.103))) + (Au price \$/oz / 31.103))) The ZnEq calculation is as follows: ZnEq = (Zn grade% \* Zn recovery) + (Cu grade % \* Cu recovery % \* (Cu price \$/t/ Zn price \$/t \* 0.01))) + (Pb grade % \* Pb recovery % \* (Pb price \$/t/ Zn price \$/t \* 0.01)) + (Au grade g/t / 31.103 \* Au recovery % \* ((Au price \$/oz / 31.103) / Zn price \$/t \* 0.01))) + (Ag grade g/t / 31.103 \* Ag recovery % \* ((Ag price \$/oz / 31.103) / Zn price \$/t \* 0.01)). For Waterloo transition material, recoveries of 76% Zn, 58% Cu and 0% Pb have been substituted into the ZnEq formula. For Liontown oxide material, recoveries of 44% Zn, 40% Cu and 35% Pb have been substituted into the ZnEq formula. Further metallurgical test work is required on the Liontown oxide domain. It is the opinion of Sunshine and the Competent Person that the metals included in the ZnEq formula have reasonable potential to be recovered and sold.

The Ravenswood Consolidated VMS Resource is comprised of 7.0mt @ 1.3g/t Au, 0.9% Cu, 5.5% Zn, 1.7% Pb and 31g/t Ag (11.1% ZnEg). For further details refer to SHN ASX Release, 11 December 2024. "904koz AuEg Resource at Ravenswood Consolidated".



## Appendix A: Rock Chip Locations, Description and Assays

Sample ID	Au (ppm)	Easting	Northing	RL	Geological Description	Locality Type
FC25_001	1.81	353357	7887287	402	Cockade crustifom-colloform quartz-adularia vein with silica after carbonate psuedomorphs	Fresh Outcrop
FC25_002	0.02	353371	7887286	410	Crustiform quartz vein with bladed silica after carbonate pseudomorphs	Fresh Outcrop
FC25_003	0.64	353369	7887296	411	Crustiform - colloform banded quartz adularia vein	Fresh Outcrop
FC25_004	0.20	353401	7887249	398	Crustiform - colloform banded quartz adularia quartz vein with zone of black silica breccia/rock flour	Fresh Outcrop
FC25_005	17.85	353394	7887240	392	Brecciated crustiform-colloform silica-sulphide banded quartz vein	Fresh Outcrop
FC25_006	5.09	353396	7887231	392	Crustiform - colloform banded quartz-adularia vein with cross cutting silica- sulphide veinlets	Fresh Outcrop
FC25_008	6.73	353394	7887227	390	Crustiform banded quartz vein	Fresh Outcrop
FC25_009	0.08	353402	7887221	390	Crustiform - colloform banded quartz adularia vein	Fresh Outcrop
FC25_010	0.46	353406	7887220	391	Crustiform - colloform banded quartz adularia vein	Fresh Outcrop
FC25_011	11.56	353370	7887273	382	Crustiform - colloform banded quartz vein	Fresh Outcrop
FC25_012	9.49	353326	7887338	401	Crustiform - colloform banded quartz adularia vein	Fresh Outcrop
FC25_013	13.90	353305	7887356	407	Crustiform - colloform banded quartz adularia vein	Fresh Outcrop

\*Projection: MGA94, Zone 55



## Table 1, Section 1 Sampling Techniques and Data

Criteria	Explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of	<b>GEOCHEMICAL SAMPLING</b> Rocks were selected by the field geologist and location recorded. A standard geopick hammer is utilised to collect a sample typically of 1 – 2kg size along the required outcrop ensuring care is taken to only sample the required unit. Samples collected were dispatched to ALS Townsville for 30g fire assay for gold, and silver, arsenic, copper, lead, zinc, antimony by Atomic Absorption Spectroscopy (AAS).
	sampling.	DRILLING
	Include reference to measures taken to ensure sample	1 m samples. Limited information is presented on sampling techniques on the RC rigs during this period.
	representivity and the appropriate calibration of any measurement tools or systems used.	Small diamond programs were also completed, with core sampled selectively, cut (half core) on site and dispatched to laboratories in Townsville.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'in	Shallow airtrack drilling (3 inch hammer) was completed in 2005. Holes were abandoned when water was intersected or sample return decreased. The maximum hole depth was 23m. Metre interval samples were bagged from the cyclone and spear sampled on 1m intervals.
	dustry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was	Samples from all historic drill programs pre 2005 were submitted to ALS Townsville for assay. Historical sample weights were not recorded. Samples were fire assayed for gold (50 g charge) and analysed for Ag, As, Sb (on occasion) using AAS.
	used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such	Samples post 2005 were submitted to SGS Analabs in Townsville. Samples from RC drilling were split with a cyclone on rig on 1m intervals. Samples were fire assayed for gold (50 g charge) and analysed for Ag, As using AAS.
	as where there is coarse gold that has inherent	BULK SAMPLE – FRANCIS CREEK
	sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may	Ministerial approval was sought and received for the removal of a bulk sample to test the metallurgical characteristics of the vein system in 1991.
		The locality for this sample was governed by ease of extraction which was governed by locating the area of minimal overburden/waste removal and impact. It was decided that a 30 by 7 metre slot would be cut into the A vein system where three previous drill holes FSR008, FSR009 & FSR010 where collared. The drill pads had removed a significant portion of the footwall which would minimize footwall removal, limit impact on the area and allow sampling of a typical part of the vein system.
		The sampling method chosen was to remove a portion of the footwall using a Bulldozer. An excavator with a rockbreaker loosened the vein material which was transferred by bucket to a 10 Metre truck which carted it 200 metres to a naturally clear and flat area for stockpiling. A series of trucks were used to haul the material to Ravenswood where it was similarly stockpiled for toll treatment.



Criteria	Explanation	Commentary
		A toll treatment agreement was achieved with Mt. Isa Mines for utilization of their Ravenswood Gold Treatment Facilities at Ravenswood. A mass balance and gold accounting procedure and formula was established due to the novelty of the exercise to both parties.
		The results of the bulk sample exercise indicated that good recovery can be achieved from ore containing underground grades. Vein material can be extracted efficiently with minimal dilution from low grade envelope material using selective mining techniques. Wall rocks were found to be relatively competent with minor open spaces and clay gouge material. Some sub horizontal veining was observed to extend into the wall rocks but it is not know how far it extends away from the lode itself. Costeaning located additional near surface vein material adding to the tonnage and continuity of the system. The limit of oxidation or water table was not reached to 7 metres below the natural surface.
		It was logistically impossible to break down the 961 tonne sample into smaller samples and control these through the plant enough to be able to determine grade variation or nugget affect within the vein system. One 153 tonne parcel however assayed at 10.7 g/t Au. The overall batch of 961 tonnes assayed 7.6 g/t Au.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.)	Historic drilling campaigns completed between 1986 and 1998 used reverse circulation drilling (5.5 inch hammer) to obtain 1m samples. Limited diamond holes were also drilled, cored with HQ and reduced to NQ2. Two diamond holes drilled in 1998 were precollared using RC and cored to end of hole with NQ.
	depth of diamond tails, face-sampling bit or other type,	Shallow airtrack drilling (3 inch hammer) was completed in 2005. Holes were abandoned when water was intersected or sample return decreased. The maximum hole depth was 23m.
	whether core is oriented and if so, by what method, etc.).	A RC/DD capable rig was employed in 2007-8. The RC drilling (5.5 inch hammer) and diamond (NQ2) were typically sampled at 1m intervals.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	No information is available on historical drilling recoveries.
	Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource	Sunshine: Rocks have been logged for lithology, alteration, mineralisation and veining and recorded in the SHN Geochemistry Database. Photos are taken of all submitted samples.
	estimation, mining studies and metallurgical studies.	Historic: Rock descriptions have been located for most historical samples referenced in previous reports.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged.	Qualitative logging included lithology, alteration and textures; and Quantitative logging includes sulphide and gangue mineral percentages. Summaries of historic holes provided within this report are based on previously scanned copies of hand-written drill logs.



Criteria	Explanation	Commentary
Sub- sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled.	<ul> <li>Sunshine: Sample size of 1 – 2kg is deemed representative as a "point sample" within a referenced outcrop or location. They are not deemed representative of the entire outcrop or prospect as a whole. No SHN QC procedures are used for rock chips. Samples have utilised the laboratory in-house QAQC protocols.</li> <li>Historic: Sample weights are unknown for both historical rock chip samples and RC/DD drilled samples. Rock chip samples are representative as a "point sample" within a referenced outcrop or location. They are not deemed representative of the entire outcrop or prospect as a whole. No QAQC protocols are available. Diamond core was half core sampled, with core being cut at the project on a brick saw.</li> </ul>
Quality of assay data and Laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Sunshine: Rock chips were assayed using a 50g fire assay for gold with AAS finish, which is considered appropriate for this style of mineralisation. Fire assay is considered total assay for gold. All other elements were assayed using an ICP-MS/OES. Historic: Historical assays have not been validated through re-assay. Assay methods are considered appropriate for exploration drilling. Repeat samples have been analysed routinely throughout assay batches from historic drilling and rock chip sampling. Given that reputable licensed laboratories were utilised it is considered that acceptable levels of accuracy and precision were established.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Sunshine: All rock chips are considered valid for that point location only if outcrop, or as an example of ore/waste material if mullock. Historic: Documentation and information regarding data entry procedures, data verification, and data storage (physical and electronic) protocols is unknown.



Criteria	Explanation	Commentary
	Discuss any adjustment to assay data	
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control.	<ul> <li>Sunshine: Sample locations are located as points using handheld GPS in GDA94, Zone 55 format.</li> <li>Historic: Accuracy of early drill collars and rock chip samples is poorly documented and expected to be relatively poor. Field validation of remaining collar positions (using DGPS) will be completed to improve confidence in drill location.</li> <li>In several instances, rock chip locations have been digitised from georeferenced maps (source of rock chips shown in Appendix B). In many cases easting and northing information has been converted from local Francis Creek grid, AGD66 &amp; AGD84 to GDA94, Zone 55.</li> </ul>
Data spacing and distribution	Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.	No data spacing has been applied to the rock chip samples due to the nature of the technique. Drill spacing, distribution and the current uncertainty on collar position means that drill spacing is insufficient for Mineral Resource estimation.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	Rock samples are collected as "point" samples with no bearing on overall orientation of the possible structure. Interpretation from the historic trial pit, drilling intersections anomalous Au in rock chip suggests a north-northwest trend of mineralisation at Francis Creek. Drilling on other vein systems is sporadic and orientations of mineralisation have yet to be confirmed
Sample security	The measures taken to ensure sample security.	<b>Sunshine</b> : Samples were numbered in the field at the time of collection. The samples are photographed at the time of collection and are then transported by SHN to the laboratory. No third party was involved with the handling of the sample between collection and drop off.
		Historic: Sample security for historic programmes cannot be validated.



Criteria	Explanation	Commentary
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits have been carried out on the reported drill or geochemistry results herein.

## Section 2 - Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	Explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	NQ Ex Pty Ltd are the current authorised holders of the Sybil Exploration Permit (EPM26931) and an adjacent EPM in application (EPMA29218). The tenements are in good standing and no known impediments exist. Sunshine (Ravenswood) Pty Ltd, a 100% owned subsidiary of Sunshine Metals Ltd, has applied for three further EPMs that remain in application (EPMA29247, EPMA29248 and EPMA29251). A Constrained Land - Miscellaneous Noting has been placed over two sub blocks, (1 subblock on the SE corner of EPM26931) by Townsville Enterprise Limited for the Hells Gate Dam Site. The tenure reported within exists on the recognised native land of the Gugu Badhun People #2 claim. No third-party royalties exist over the project.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Prior to the mid 1980's gold exploration was not conducted in the area. Exploration in the district in the 1970's and early 1980's consisted of uranium exploration by larger companies (Urangasellschaft and Minatome) and tin exploration by smaller companies (Metals Exploration). The discovery of several epithermal style quartz veining zones in Carboniferous felsic volcanics in the Mount Fullstop region by Arany Holdings Pty Ltd in the mid 1980's highlighted the areas' potential to host economic gold deposits. The exploration Permit for Minerals 4133 for the Sybil Graben area was initially granted to Arshay (a precursor company to Queensland Epithermal, "QEP") in 1985. Since the Mount Fullstop discovery in the mid 1980's multiple episodes of exploration have been conducted in the Sybil Graben region through several joint ventures between Australian mining companies and QEP. Exploration programs have been conducted with joint venture partners Newmont Holdings Pty Ltd (1986), Homestake Gold Limited (1986), Battle Mountain Australia (1988-1990), Aberfoyle Resources Limited (1988), Normandy Exploration Pty Ltd (1992), Sons of Gwalia (1994), and Cyprus Gold Australia Corporation (1996). The exploration programs utilised a variety of exploration techniques; geological mapping and gridding, BLEG, stream sediment, and soil sampling, rock chip sampling, air and ground magnetic surveys, air radiometric surveys, IP surveys; and percussion, air track, reverse circulation, and diamond



Criteria	Explanation	Commentary
		drilling programs. More than a dozen prospects, notably the Francis Creek and Quartz Ridge Prospects, were explored, and a total of 168 holes were drilled throughout the project between 1986 and 2005. The most extensive joint venture was entered into in mid 1988 with Battle Mountain Australia (BMA) who were interested in the project due to the similarities with the Pajingo Vera-Nancy gold mine located 150km southeast of the Sybil Graben. A detailed exploration program was conducted over a two year period throughout several prospects within the Project. Work consisted of; a regional BLC drainage survey, mapping and sampling programs of selective areas, magnetic, IP, radiometric surveys, and several drilling programs comprising 23 percussion drill holes, 55 RCP holes, and four diamond holes throughout several prospects. BMA withdrew from the JV in 1990. During 2007, Canadian public company Queensland Minerals Ltd (QML) carried out drill testing at the Quartz Ridge and Francis Creek Prospects to test for high grade epithermal mineralisation. Seven drill holes were completed at Quartz Ridge, with a total of 1713m being drilled (487.9m of RC and 1225.1m of diamond drilling). Eighteen drill holes were completed at Francis Creek, with a total of 2157.6m being drilled (1498.2m of RC and 659.4m of diamond drilling). Although the results at Francis Creek were considered to be favourable enough to continue, the global financial situation changed and the company ran out of exploration funding, and subsequently withdrew from the project. NQ Ex Pty Ltd pegged the available ground and EPM26931 was granted in 2021.
Geology	Deposit type, geological setting and style of mineralisation.	Sybil Project area comprises the Sybil Group of volcanic and sedimentary rocks hosted within the Sybil Graben. The graben is constrained to the north by the Kangaroo Hills Formation phyllites and to the east and south by the Oweenee Granites (Draper and Withnall 1997). The Ordovician to Early Devonian Camel Creek Sub-province and Carboniferous Ruxton Formation flysch-type sequences occur within the graben. These are overlain by the late Carboniferous Hells Gate Rhyolite to the south and west of the graben.
		which is in turn disconformably overlain by the Marshs Creek Formation (Draper and Withnall 1997). The northern end of the graben is characterised by widespread epithermal veining within a gently dipping felsic volcanic and volcaniclastic sequence of rhyolite, rhyolite breccia and quartz phyric tuff (Cumming, 2007).
		The geology of the Quartz Ridge Prospect comprises largely rhyolite and monomictic rhyolite breccias with associated rhyolite fiamme breccia, amygdaloidal/lithophysae facies and polymictic rhyolite breccia with underlying quartz phyric tuffs and conglomerates (Cumming, 2007). Brecciation is well developed proximal to intrusion margins. Breccias associated with rhyolite domes grade into the crystal tuff units (Corbett, 2007) and a polymictic clay-rich milled breccia has been observed to occur along the contact between the rhyolite and the Marshs Creek Formation to the east. Alteration in the Quartz Ridge area is dominated by silica-pyrite and illite-sericite with associated assemblages including jarosite-limonite-hematite, kaolinite and minor biotite with hydrothermal brecciation and silicification commonly observed within drill core (Cummings, 2007).
		The geology of the Francis Creek Prospect is dominated by crystal tuff overlying the Kangaroo Hills basement metasediments. Strong epithermal style veining (the Francis Creek Vein system) has formed within the crystal tuff and basement units associated with strongly silicified wall rock, illite-sericite alteration and kaolinite. A flat lying conglomerate outcrops to the NW of the Francis Creek Vein system (Corbett, 2007).
Drill hole Information	A summary of all information material to the understanding of the exploration results	Rock chip locations are listed in SHN ASX Release 23 June 2025 (Appendix A).



Criteria	Explanation	Commentary
	<ul> <li>including a tabulation of the following information for all Material drill holes:</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why</li> </ul>	Drill collar and survey details can be found in Appendix B. Some collar RLs are not available in the historic reports. Where possible survey pickups of historic collar positions will be conducted in upcoming site visits. A detailed topographic mapping survey will be completed by drone in upcoming visits and used to validate historic collar RLs. Drill intersections can be found in SHN ASX Release 23 June 2025 (Appendix C).
Data aggregation methods	Competent Person should clearly explain why this is the case In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated.	All grades and intercepts referred to in this document are as reported in their associated historical documents. No further adjustments or assumptions have been made.



Criteria	Explanation	Commentary
Relationship between mineralisation widths and intercept length	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not	Rock samples are collected as "point" samples with no bearing on overall endowment of the possible structure. Veins mapped in field vary between <1cm to 1m. More data will be required to accurate assess the true nature of the mineralisation. All drilling intercept widths reported herein are downhole width only, with no true widths reported.
Diagrams	known'). Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	All relevant diagrams are located within the body of this report
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All rock chips referred to in this report are listed in SHN ASX Release 23 June 2025 (Appendix B) All drilling intercepts for the Francis Creek and Quartz Ridge drilling can be found in SHN ASX Release 23 June 2025 (Appendix D)
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<ul> <li>All meaningful and material data is reported within the body of the report.</li> <li>Historical, open-file reports referred to in this report are:</li> <li>CR_16494, CR_16495, CR_18763, CR_19592, CR_20976, CR_21669, CR_23632, CR_23815, CR_24574, CR_25289, CR_27000, CR_27654, CR_29609, CR_31492, CR_31939, CR_32333, CR_33009, CR_36582, CR_37885, CR_38543, CR_38779, CR_40465, CR_44596, CR_53351, CR_54421, CR_60938, CR_65617 &amp; CR68846.</li> </ul>



Criteria	Explanation	Commentary
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Future work programs may include soil sample gridding, detailed magnetics, induced polarisation surveys and follow-up shallow drilling of oxide gold positions.